

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

TRANSLATION

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

Applicant's or agent's file reference FAQ-449PCT		Date of mailing (day/month/year)
FOR FURTHER ACTION See paragraph 2 below		
International application No. PCT/JP2006/301293	International filing date (day/month/year) 27.01.2006	Priority date (day/month/year) 31.01.2005
International Patent Classification (IPC) or both national classification and IPC		
Applicant JAPAN SCIENCE AND TECHNOLOGY AGENCY		

1.	This opinion contains indications relating to the following items:	
<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
2.	FURTHER ACTION	
If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66,1bis(b) that written opinions of this International Searching Authority will not be so considered.		
If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.		
For further options, see Form PCT/ISA/220.		
3. For further details, see notes to Form PCT/ISA/220.		

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2006/301293

Box No. I	Basis of this opinion
<p>1. With regard to the language, this opinion has been established on the basis of:</p> <p><input checked="" type="checkbox"/> the international application in the language in which it was filed</p> <p><input type="checkbox"/> the translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).</p> <p>2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> on paper</p> <p><input type="checkbox"/> in electronic form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed</p> <p><input type="checkbox"/> filed together with the international application in electronic form</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search</p> <p>3. <input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p> <p>4. Additional comments:</p>	

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INTERNATIONAL SEARCHING AUTHORITY**

Box No. V	International application No. PCT/JP2006/301293	
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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																			
<p>1. Statement</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Novelty (N)</td> <td style="width: 60%;">Claims <u>1 – 5</u></td> <td style="width: 20%;">YES</td> </tr> <tr> <td></td> <td>Claims _____</td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims <u>1 – 5</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims _____</td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims <u>1 – 5</u></td> <td>YES</td> </tr> <tr> <td></td> <td>Claims _____</td> <td>NO</td> </tr> </table>			Novelty (N)	Claims <u>1 – 5</u>	YES		Claims _____	NO	Inventive step (IS)	Claims <u>1 – 5</u>	YES		Claims _____	NO	Industrial applicability (IA)	Claims <u>1 – 5</u>	YES		Claims _____	NO
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	Claims _____	NO																		
Industrial applicability (IA)	Claims <u>1 – 5</u>	YES																		
	Claims _____	NO																		
<p>2. Citations and explanations:</p> <p>Document 1: S. ISHIKAWA et al., J. Am. Chem. Soc., 2004, Vol. 126, No. 39, pages 12236 and 12237</p> <p>Document 2: K. MANABE et al., Tetrahedron, 2003, Vol. 59, pages 10439-10444</p> <p>Document 3: JP, 2001-252570, A (Japan Science and Technology Corp.), 18 September, 2001 (18.09.01)</p>																				
<p>The documents shown above were cited in the ISR.</p> <p>The subject matters of claims 1-5 appear to be novel and to involve an inventive step in view of documents 1-3.</p> <p>Documents 1-3 describe neither the manufacturing method of optically-active hydroxymethylated compounds, wherein a silicon enolate is reacted with formaldehyde in either an aqueous solution or a mixed solvent of water and an organic solvent in the presence of a catalyst obtained by mixing a ligand consisting of a chiral bipyridine or an antipode thereof with a Lewis acid represented as BiY₃ (where, Y is a halogen atom, OAc, OCOCF₃, ClO₄, SbF₆, PF₆ or OSO₂CF₃), nor the above-mentioned catalyst itself.</p>																				